

MATERIAL SAFETY DATA SHEET

SECTION I - PREPARATION INFORMATION

Product name: Ink JP-TH76
Manufacturer/distributor: Hitachi America, Ltd.
50 Prospect Avenue, Tarrytown NY 10591
Tel 800-448-2244, Fax 914-631-3672
Emergency phone: CHEMTREC: USA 800-424-9300, Outside USA 703-527-3887

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SECTION II - IDENTIFICATION

Product Name TH76
Product Use Ink Jet Printers
Description Clear liquid with solvent odor

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

HAZARD RATINGS: 0 Minimal 1 Slight 2 Moderate 3 Serious 4 Extreme B Hand & Eye Protection

HEALTH 1 FLAMMABILITY 3 REACTIVITY 0 PERSONAL PROTECTION B

NOTICE: These ratings are for general rapid interpretation. The end-user is responsible for determining the proper protective procedures.

SECTION III - HAZARDOUS INGREDIENTS

Ingredient	CAS#	%	TLV*	PEL*	LD ₅₀ ** g/kg	LC ₅₀ ** g/m ³ g/m ³ / 8hr
Methyl Ethyl Ketone	78-93-3	60-100	200	200	2.7	23.5 g/m ³ / 8hr
Methanol	67-56-1	10-30	200	200	5.6	64,000ppm/ 4hr
Ethanol	64-17-5	3-7	1000	1000	7.0	20,000ppm/1 0h

SECTION IV - PHYSICAL DATA

Boiling Range 78 to 80° C
Melting Range -80° C
Freezing Range -80° C

Vapor Pressure	~82mm of Hg @ 20° C
Vapor Density (Air=1)	Greater than air
Solubility In Water	Miscible
Solubility In Organic Solvents	Miscible
Specific Gravity (Water=1)	0.802
Percent Volatile By Volume (%)	100%
Evaporation Rate (N-Butyl Acetate=1)	1.9 to 4.6
pH in concentrate	Not Applicable
pH in dilution as used	Not Applicable
Appearance And Odor	Clear liquid with solvent odor
Odor Threshold	Not Available

SECTION V - FIRE AND EXPLOSION HAZARD

Flash Point (Tcc)	-2° C
Auto Ignition Temperature	422 to 516° C
Upper Flammable Limit (%By Vol.)	37
Lower Flammable Limit (%By Vol.)	1.7
Hazardous Combustion Products	Carbon Monoxide, Carbon Dioxide
Extinguishing Media	Regular foam or dry chemical
Explosion Data (Sensitive To Mechanical Impact)	No
Explosion Data (Sensitive To Static Discharge)	Yes

FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode.

SECTION VI - REACTIVE DATA

Condition Of Instability	None Known
Incompatibility	Strong oxidizing agents
Conditions Of Reactivity	Not applicable
Hazardous Decomposition Products	Carbon Monoxide, Carbon Dioxide

SECTION VII - TOXICOLOGICAL PROPERTIES (HEALTH HAZARD)

ROUTES OF ENTRY: Skin contact, skin absorption, ingestion, inhalation, and eyes

EFFECT OF ACUTE EXPOSURE:

Eyes	May cause extreme eye irritation. Symptoms may include burning, tearing, redness, swelling and eye damage.
Skin	Exposure may cause skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking, and skin damage.
Breathing	Excessive inhalation of vapors can cause nasal and respiratory irritation. Central nervous system effects include dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even death. Inhalation of material into the lungs can cause chemical pneumonitis, which can be fatal.
Swallowing	Can cause gastrointestinal irritation, nausea, vomiting, diarrhea,

blindness and death.

Exposure Limits	See section III
Sensitization To Product	Not Available
Carcinogenicity	Not Available
Reproductive Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Toxicological Synergistic Products	None known

EFFECTS OF CHRONIC EXPOSURE:

Methyl Ethyl Ketone - Minor embryotoxic/fetotoxic effects have been observed in laboratory rats exposed to methyl ethyl ketone by inhalation at levels greater than 1000 ppm (5 times the OSHA-PEL/TWA) for most of the gestation period. Methyl ethyl ketone may potentiate (shorten the time of onset) peripheral neuropathy, but methyl ethyl ketone, by itself, has not been shown to cause peripheral neuropathy.

Methanol - Poisoning may occur from ingestion. Other symptoms of over-exposure may be headaches, acidosis, convulsions, mydriasis, circulatory collapse, respiratory failure and death.

Ethanol - Nausea, vomiting, flushing, mental excitement or depression, drowsiness, impaired perception, uncoordination, stupor, coma and death may occur.

SECTION VIII - PREVENTATIVE MEASURES

PERSONAL PROTECTION:

Respiratory protection	If workplace exposure limit(s) of product or any other component is exceeded, a NIOSH/OSHA approved respirator is advised. (See your safety equipment supplier for specific details.)
Ventilation	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below PEL/ TLV.
Protective gloves	Wear chemical resistant gloves. (Consult your safety equipment supplier.)
Eye protection	Wear chemical splash goggles in compliance with OSHA regulations. However, OSHA regulations also permit other types of safety glasses.
Other protective equipment	Wear impervious clothing and boots to prevent prolonged exposure.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Keep away all sources of ignition from spill. If spill is indoors, ventilate areas of spill and soak up the spill with absorbent material. Do not let spilled or leaking material enter watercourse.

DISPOSAL METHOD: Absorb in vermiculite, floor absorbent or other absorbent material and dispose in licensed facility. Observe all federal, state and local regulations.

HANDLING AND STORAGE: Protect from freezing. Overheating may cause container to rupture. Covered storage is preferable.

SPECIAL SHIPPING INFORMATION: SEE SECTION X

SECTION IX - FIRST AID MEASURES
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Oral Ingestion	Seek immediate medical attention.
Eye Contact	Flush with water for 15 minutes and seek medical attention.
Skin Contact	Wash with soap and water. Wash contaminated clothing before reuse.
Skin Absorption	If skin irritation persists, seek medical attention.
Inhalation	Remove to fresh air, give artificial respiration and seek medical attention.
Effects Of Overexposure	May cause headaches if inhaled. Seek medical attention. If swallowed, can cause drunken-type behavior followed by severe systemic illness.

SECTION X - TRANSPORTATION

DOT / TDG Proper Shipping Name	UN1210 Printing Ink
DOT / TDG Hazard Class	3
DOT / TDG Label	Flammable Liquid

SECTION XI - DISCLAIMER

Every effort has been made to ensure that the information in this MSDS is accurate, and as complete as reasonably possible and of course all data herein are given in good faith. However, all information is furnished without warranty of any kind, and InkJet, Inc., expressly negates any warranty of accuracy, expressed or implied; and InkJet, Inc. assumes no responsibility for personal injury or damage to property to customers, vendors, or third parties if any information herein proves to be incorrect in any respect. Purchasers are encouraged to make independent determination of suitability and completeness of information from all sources to assure proper use and compatibility of product.

*NIOSH Publication #94-116 **Sax's Dangerous Properties of Industrial Mtls. 10th Ed.